Complete Summary

GUIDELINE TITLE

Hematuria.

BIBLIOGRAPHIC SOURCE(S)

Hematuria. Philadelphia (PA): Intracorp; 2005. Various p. [12 references]

GUIDELINE STATUS

This is the current release of the guideline.

All Intracorp guidelines are reviewed annually and updated as necessary, but no less frequently than every 2 years. This guideline is effective from July 1, 2005 to July 1, 2007.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Hematuria including

- Gross hematuria
- Microscopic hematuria

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Nephrology
Urology

INTENDED USERS

Allied Health Personnel
Health Care Providers
Health Plans
Hospitals
Managed Care Organizations
Utilization Management

GUIDELINE OBJECTIVE(S)

To present recommendations for the diagnosis, management, and treatment of hematuria that will assist medical management leaders to make appropriate benefit coverage determinations

TARGET POPULATION

Individuals with hematuria

INTERVENTIONS AND PRACTICES CONSIDERED

Diagnosis/Evaluation

1. Physical examination, history, assessment of signs and symptoms, and examination of urine specimen
2. Diagnostic tests
    - Urine dipstick
    - Computed tomography (CT) scan
    - Angiography
    - Ultrasound (US) of the kidneys and bladder
    - Intravenous pyelogram (IVP)
    - Plain film of the abdomen
    - Cystoscopy
    - Urinary sediment for white blood cells (WBCs) and culture of urine
    - Serum creatinine
    - Renal biopsy if necessary

Management/Treatment

1. Oral antibiotics for treatment of genitourinary tract infections
2. Surgery if bleeding does not cease
3. Specific treatment for underlying renal disease
4. Referral to specialists

MAJOR OUTCOMES CONSIDERED

Sensitivity, specificity, and accuracy of diagnostic tests

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Searches were performed of the following resources: reviews by independent medical technology assessment vendors (such as the Cochrane Library, HAYES); PubMed; MD Consult; the Centers for Disease Control and Prevention (CDC); the U.S. Food and Drug Administration (FDA); professional society position statements and recommended guidelines; peer reviewed medical and technology publications and journals; medical journals by specialty; National Library of Medicine; Agency for Healthcare Research and Quality; Centers for Medicare and Medicaid Services; and Federal and State Jurisdictional mandates.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Not Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not stated

METHODS USED TO ANALYZE THE EVIDENCE

Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus (Delphi)

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

A draft Clinical Resource Tool (CRT or guideline) is prepared by a primary researcher and presented to the Medical Technology Assessment Committee or the Intracorp Guideline Quality Committee, dependent upon guideline product type.

The Medical Technology Assessment Committee is the governing body for the assessment of emerging and evolving technology. This Committee is comprised of a Medical Technology Assessment Medical Director, the Benefit and Coverage Medical Director, CIGNA Pharmacy, physicians from across the enterprise, the Clinical Resource Unit staff, Legal Department, Operations, and Quality. The Intracorp Guideline Quality Committee is similarly staffed by Senior and Associate Disability Medical Directors.

Revisions are suggested and considered. A vote is taken for acceptance or denial of the CRT.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not stated

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Diagnostic Confirmation

Subjective Findings

- Observation of cloudy or frankly bloody urine

Objective Findings

- Physical examination of urine confirms appearance of cloudiness or discoloration.
- Simple "dipstick" confirmation

Diagnostic Tests

- Carefully obtained history and physical exam should accompany urine specimen collection, as it may provide evidence to help localize the source of the hematuria.
- Urine dipstick for the presence of hemoglobin and/or myoglobin
    - Should be performed even if gross hematuria is present as many drugs and foods can cause urine to appear various shades of orange and reddish-brown
- Computed tomography (CT) usefully in stable patients
    - Preferred test for individuals for whom blunt abdominal trauma may be the cause of hematuria, as it allows for the visualization of the entire retroperitoneum.
- Angiography for the evaluation of renal vascular and solid organ injuries
- Ultrasound (US) of the kidneys and bladder is useful in evaluating solid renal masses, bladder outlet obstruction, or urethral atresia.
- Intravenous pyelogram (IVP) may help determine kidney function and identify kidney stones (renal calculi).
- Plain film of the abdomen can be performed.
- Cystoscopy can be performed to better evaluate the mucosa of the urinary tract.
- Urinary sediment for white blood cells (WBCs) and culture of urine
- Serum creatinine to detect abnormalities in glomerular filtration rate (GFR)
- Renal biopsy only if other tests fail to diagnose

Differential Diagnosis

- Nephrolithiasis (see the Intracorp guideline Nephrolithiasis)
- Hemoglobinuria
- Hemolysis
- Infection/Sepsis (see the Intracorp guideline Urinary Tract Infection)
- Glomerulonephritis
- Vasculitis
- Chronic renal failure
- Kidney neoplasm (see the Intracorp guideline Kidney Neoplasm)
- Trauma (e.g., blunt trauma to kidneys)
- Drugs (e.g., sulfa drugs, salicylates)
- Foods (e.g., beets, food coloring)
- Metabolites (e.g., Porphyrin, Homogentisic acid)

Treatment

Treatment Options

- In cases of blunt trauma where bleeding does not cease on its own, surgery may be necessary to control bleeding.
- Treatment of infections of the genitourinary tract with oral antibiotics

- Neoplasms or glomerulonephritis: variable course is related to the specific treatment of underlying renal disease.

Duration of Medical Treatment

- Medical - Optimal: 3 day(s), Maximal: 90 day(s)

Additional provider information regarding primary care visit schedules, referral options, and specialty care are provided in the original guideline document.

The original guideline document also provides a list of red flags that may affect disability duration, and return to work goals, including

- Resolving pain, bleeding, fever from urinary tract infection or other urinary tract disease
- After hospitalization for surgical intervention

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is not specifically stated for each recommendation.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate diagnosis, management, and treatment of hematuria that assist medical management leaders to make appropriate benefit coverage determinations

POTENTIAL HARMS

The specificity of the dipstick for hematuria compared with microscopy is somewhat lower, reflecting a higher false-positive rate with the dipstick. False-positive dipstick readings most often are due to contamination of the urine specimen with menstrual blood.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005

GUIDELINE DEVELOPER(S)

Intracorp - Public For Profit Organization

SOURCE(S) OF FUNDING

Intracorp

GUIDELINE COMMITTEE

CIGNA Clinical Resources Unit (CRU)
Intracorp Disability Clinical Advisory Team (DCAT)
Medical Technology Assessment Committee (MTAC)
Intracorp Guideline Quality Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

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AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- Policies and procedures. Medical Technology Assessment Committee Review Process. Philadelphia (PA): Intracorp; 2004. 4 p.
- Online guideline user trial. Register for Claims Toolbox access at www.intracorp.com.

Licensing information and pricing: Available from Intracorp, 1601 Chestnut Street, TL-09C, Philadelphia, PA 19192; e-mail: lbowman@mail.intracorp.com.

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI on August 10, 2005. The information was verified by the guideline developer on August 31, 2005.

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